



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/581,465

06/01/2006

Michel Robbe

28944/40176

2324

29471 7590 03/19/2009  
MCCRACKEN & FRANK LLP  
311 S. WACKER DRIVE  
SUITE 2500  
CHICAGO, IL 60606

EXAMINER

HA, DAC V

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

03/19/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/581,465		ROBBE ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Dac V. Ha		2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☒ Claim(s) 2-3, 5-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over Delmas et al. (US 5,663,688) (hereafter Delmas) in view of the Admitted Prior Art (APA).

**Re claim 1**, Delmas discloses:

“a controlled oscillator to deliver a high frequency signal (Fig. 3, element 11), “a frequency divider to convert the high frequency signal into a divided frequency signal” (Fig. 3, element 12), “a phase comparator to receive the divided frequency signal and a reference signal and produce a signal measuring a phase difference between the divided frequency signal and the reference signal” (Fig. 3, elements 8 and 9; col. 4, lines 14-19), “and a low-pass filter to control the oscillator on the basis of the measurement signal” (Fig. 3, element 10), “wherein it also comprises means for generating a measurement window, of a duration defined by counting cycles of the high frequency signal, in response to each active edge of the divided frequency signal” (Fig. 3, element 13; col. 6, lines 5-11), “and in that the phase comparator is built to activate the measurement signal during the measurement window in response to each active edge of the divided frequency signal” (col. 4, lines 62-67; 14-19; col. 7, lines 11-16).

Delmas differs from the claimed invention in that Delmas does not explicitly disclose claimed subject matter “so that the measurement signal comprises, when an active edge of the reference signal falls within the measurement window, a first pulse between the start of the measurement window and said active edge of the reference signal and a second pulse opposite to the first pulse between said active edge of the reference signal and the end of the measurement window”.

However, the APA discloses claimed subject matter “so that the measurement signal comprises, when an active edge of the reference signal falls within the measurement window, a first pulse between the start of the measurement window and said active edge of the reference signal and a second pulse opposite to the first pulse between said active edge of the reference signal and the end of the measurement window” in para. 0004 of the present application.

Both Delmas and APA seek to active operation of the phase comparator only within a defined window, therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to substitute the phase comparator, taught by the APA, into Delmas phase locked loop and predictable result still can be expected.

3. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Delmas in view of APA as applied to claim 1 above, and further in view of Crosby (US 5,157,290).

**Re claim 4**, the combination of Delmas and APA discloses all claimed subject matter in claim 4, as stated above, except for "wherein the duration of the measurement window is a whole number of cycles of the high frequency signal”.

In the same field of endeavor, Crosby discloses claimed subject matter "wherein the duration of the measurement window is a whole number of cycles of the high frequency signal" in col. 2, lines 18-32.

Crossy and the aforementioned combination, namely Delmas, derives the window from the high frequency signal. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the teaching of "wherein the duration of the measurement window is a whole number of cycles of the high frequency signal", taught in Crosby, into the aforementioned combination and predictable result can still be expected.

#### ***Allowable Subject Matter***

4. Claims 2-3, 5-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

O'Sullivan et al. (US 6,259,755)

Duffy et al. (US 6,026,134)

Conta et al. (US 6,215,363)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040.

The examiner can normally be reached on 4/4.

Art Unit: 2611

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dac V. Ha/  
Primary Examiner, Art Unit 2611